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CAPACITY DEVELOPMENT OF BARANGAY DISASTER RISK REDUCTION MANAGEMENT COUNCIL (BDRRMC): ITS INFLUENCE TO DISASTER RESPONSE

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Abstract: Rapid availability to an emergency or disaster response is a crucial sign that victims and injured people's chances of survival are increased. The actions taken in the initial minutes of an emergency are critical. A prompt warning to the people to evacuate, shelter or lockdown can save lives. A call for help to public emergency services that provides full and accurate information will help the dispatcher send the right responders and equipment. A trained individual to administer emergency response can be lifesaving. Action by trained individuals with knowledge of building and process systems can help control a leak and minimize damage to the facility and the environment.

Introduction

In the context of South Korea, a prevailing sentiment of invulnerability exists, wherein individuals and entities hold the belief that they are impervious to the occurrence of calamities. This phenomenon significantly affects the degree of readiness in response to natural or man-made disasters. The comparative analysis of Kyoo (2016) discovered that there is a need for Korea's practices and policies to transition from the present exclusive management approach to a more forward-thinking inclusive management approach. Furthermore, this discourse delves into the significance of communication, cooperation, collaboration, and multidisciplinary coordination. Furthermore, the issue of reductionism and the need for equitable engagement among all stakeholders, together with the challenges

Japan is deemed to be exceptionally susceptible to natural calamities due to its climatic conditions and topographical features. Throughout its history, Japan has encountered numerous occurrences of earthquakes, typhoons, and several other forms of disasters. Several factors contribute to the elevated occurrence of natural catastrophes in Japan. Countermeasures against disasters in Japan can be categorized into five main areas. Firstly, there is a focus on conducting research to enhance scientific and technical knowledge related to disaster prevention. Secondly, efforts are made to strengthen the disaster prevention system by reinforcing its facilities, equipment, and implementing other preventive measures. Lastly, there is a focus on improving information and communication systems to facilitate effective disaster response and management. The allocated budget for the aforementioned activities during fiscal year 1993 amounted to about 2.9 trillion US dollars, equivalent to 23.8 billion US dollars (Ministry of Foreign Affairs in Japan, 2021). In the Philippines, one of the key tactics to increase response capacity and capability in the area is the formation of Barangay Emergency and Disaster Risk Reduction Response Teams through Barangay Disaster Risk Reduction Management Committee. However, there are several factors affecting emergency response time of any rescue team in terms of nature of emergency, degree of emergency, size of organization, capabilities of the organization in an emergency situation, immediacy of outside aid, physical layout of the premises. There are many ways to describe emergency response and the importance of the tasks emergency managers perform. Indeed, in some respects,

it hardly seems necessary to explain the need for a profession whose purpose is saving lives and property in disasters.

It is likely that, while many people recognize their communities are exposed to environmental threats requiring a systematic program of protection, only a few appreciate the magnitude and diversity of the threats. One can introduce the study of emergency management by noting losses from disasters (Berke, 2018).

When an emergency occurs, the first priority is always life safety. The second priority is the stabilization of the incident. There are many actions that can be taken to stabilize an incident and minimize potential damage. First aid and CPR by trained employees can save lives. Use of fire extinguishers by trained employees can extinguish a small fire. Containment of a small chemical spill and supervision of building utilities and systems can minimize damage to a building and help prevent environmental damage.

The study first determined the Capacity Development of Barangay Disaster Risk Reduction Management Council (BDRRMC) in the Municipality of Concepcion. Then it evaluated the competency in disaster response among BDRRMC along with: Prevention and Mitigation; Preparedness; Response; and Recovery and Rehabilitation. In addition, the study also determined the problems encountered by the respondents which affects their disaster response in the Municipality of Concepcion, to wit measures were proposed.

From the aforementioned data above, the researcher of the present study was determined to assess and investigate on the effectiveness of the current implementation of the BDRRMC in the Municipality of Concepcion, and from the results derived, the researcher will determine areas of lacking or shortcomings that should be addressed and improved to better the implementation and action given on the BDRRMC.

I.2 STATEMENT OF THE PROBLEM

The study evaluated the Capacity Development of Barangay Disaster Risk Reduction Management Council (BDRRMC) in the Municipality of Concepcion.

The study sought to answer the following questions.

1. What are the Capacity Development for Barangay Disaster Risk Reduction Management Council (BDRRMC) in the Municipality of Concepcion?
2. How is the competence in disaster response be described and evaluated along with:
   2.1 Prevention and Mitigation
   2.2 Preparedness
   2.3 Response
   2.4 Recovery and Rehabilitation
3. What are the problems encountered by the respondents which affects their disaster response in the Municipality of Concepcion?
4. What measures can be proposed to enhance the disaster response in the Municipality of Concepcion?
5. What are the implications of the study to Public Administration?

Scope and Delimitation of the Study

The study first determined the Capacity Development of Barangay Disaster Risk Reduction Management Council (BDRRMC) in the Municipality of Concepcion. Then it evaluated the competency in disaster response among BDRRMC along with: Prevention and Mitigation; Preparedness; Response; and Recovery and Rehabilitation. In addition, the study also determined the problems encountered by the respondents which affects them

Disaster response in the Municipality of Concepcion, to wit measures were proposed. In addition, the sample size, respondents, and locale of the study were also the additional limitations of the study. This study included the following trainings: Firefighting and Rescue Operations Training (2017) with the PDRRMO Tarlac as Facilitators including participants only in Tarlac City; Training Workshop on QGIS (2017) with the facilitator of DILG including participants only in Subic; Basic Incident Command System (2018) with LGU/OCD as facilitators including 30 participants in Concepcion, Tarlac; DART (2018) with LGU/REDCROSS/PDRRMO with 30 participants in Concepcion and San Jose Tarlac; DART (2019) with the LGU/PDRRMO including 40 participants in Conception, Tarlac and Bagac, Bataan; RDANA (2021) Training for LDRRMOs with the OCD as facilitators including participants only held VTC (online); PSCP Training Course for LGUs (2021) with the OCD as facilitators including the participants only held in VTC (Online); Concepcion Rescue Volunteers Training (2021) with the LGU and PDRRMO as facilitators with 50 participants held in Concepcion, Tarlac and San Jose, Tarlac, Concepcion Rescue Volunteers Training (2021) with the LGU and PDRRMO including 28 participants held in Conception and San Jose Tarlac; Incident Command System Executive Course (2022) with the LGU/OCD with 45 participants held in LGU/OCD; Training on Management of Dead and Missing

(2022) with participants only and the DILG held in Subic; Training on Crisis Management on LGUs (2022) with the DILG including participants only held in Subic; Ambulance Operation and EVO Course (2022) with the LGU/PDRRMO with 85 participants held in Concepcion, Tarlac; Barangay First Aid Training (2022) with the LGU/PDRRMO including 121 participants held in Concepcion, Tarlac; PDNA Training (2022) with the OCD including participants only held in VTC

Conceptual Framework

The study first determined the Capacity Development of Barangay Disaster Risk Reduction Management Council (BDRRMC) in the Municipality of Concepcion. Then it evaluated the competency in disaster response among BDRRMC along with: Prevention and Mitigation; Preparedness; Response; and Recovery and Rehabilitation. In addition, the study also determined the problems encountered by the respondents which affects their disaster response in the Municipality of Concepcion, to wit measures were proposed. Lastly, the implications of the study to public administration were identified.

Research design

The study utilized quantitative descriptive research design which refers to the systematic collection and analysis of numerical data. One potential application of this methodology involves the identification of patterns and averages, the formulation of predictions, the testing of causal linkages, and the generalization of findings to broader populations. Descriptive research design was used in this study using a descriptive method. This study's research design described the capacity development in the BDRRMC in the municipality of Concepcion.

The study used descriptive research which aimed to accurately represent its subjects. Descriptive research, to put it another way, focuses on characterizing the study's participants. When the goals of the study involve describing a phenomenon's features, figuring out how frequently it occurs, figuring out how closely certain factors are related or compared, and generating predictions about when a phenomenon will occur, descriptive research is acceptable. The researcher thoroughly reviewed, evaluated, and described the data in descriptive research (Churchill & Iacobucci, 2015)

Local of the Study

The study was conducted in the Municipality of Concepion, Tarlac. Balen ning Concepion (Bayan ng Concepcion) located in Regio III, one of the largest municipalities in the province of Tarlac. In 1860, the towns of Concepcion and Magalang comprised a single town named San Bartolome (presently a barangay of Concepcion), which was a military Commandancia of Pampanga under the Spanish regime. A catastrophic flood devastated the whole settlement of San Bartolome in 1863 and its residents were left with no other choice but to abandon the place. Divided as to where they were to resettle, some went north and others went south.

Respondents of the Study

The participants of the study included the composition of the BDRRMC members who were composed of 68 members and 4 population. The sampling method to be used in choosing the sample and population for this study was random sampling. It is a non-probability sampling that approaches and encompass a collection of methods whereby units are chosen as samples based on their possession of specific qualities required for the investigation. The researcher obtained the participants from a wide range which helped enrich the data of the research. The present study chose this sampling technique to avoid any biases in choosing the participants and allowing them to freely share their perception about the capacity development of the BDRRMC within their area. The researcher administered the survey questionnaires with regards to the capacity development of the BDRRMC in Concepcion to be assigned and/or sent through their gmails, which served as the method for disseminating the questions and getting their responses. Moroever, This study included the following trainings: Firefighting and Rescue Operations Training (2017) with the PDRRMO Tarlac as Facilitators including participants only in Tarlac City; Training Workshop on QGIS (2017) with the facilitator of DILG including participants only in Subic; Basic Incident Command System (2018) with LGU/OCD as facilitators including 30 participants in Concepcion, Tarlac; DART (2018) with LGU/REDCROSS/PDRRMO with 30 participants in Concepcion and San Jose Tarlac; DART (2019) with the LGU/PDRRMO including 40 participants in Conception, Tarlac and Bagac, Bataan; RDANA (2021) Training for LDRRMOs with the OCD as facilitators including participants only held VTC (online); PSCP Training Course for LGUs (2021) with the OCD as facilitators including the participants only held in VTC (Online); Concepcion Rescue Volunteers Training (2021) with the LGU and PDRRMO as facilitators with 50 participants held in Concepcion, Tarlac and San Jose, Tarlac, Concepcion Rescue Volunteers Training (2021) with the LGU and PDRRMO including 28 participants held in Conception and San Jose Tarlac; Incident Command System Executive Course (2022)

with the LGU/OCD with 45 participants held in LGU/OCD; Training on Management of Dead and Missing (2022) with participants only and the DILG held in Subic; Training on Crisis Management on LGUs (2022) with the DILG including participants only held in Subic; Ambulance Operation and EVO Course (2022) with the LGU/PDRRMO with 85 participants held in Concepcion, Tarlac; Barangay First Aid Training (2022) with the LGU/PDRRMO including 121 participants held in Concepcion, Tarlac; PDNA Training (2022) with the OCD including participants only held in VTC (online); Incident Command System Level 2 (2023) held in Bataan with LGU Victoria and participants only; Camp Management Training (2023) with the PSWDO held in Baguio with the participants only; Wilderness Search and Rescue (2023) with the WiSAR Philippines held in various areas with participants only; and Swiftwater Rescue Training (2023) with PDRRMO Tarlac with participants only. Lastly the study was conducted in the year 2021-2022.

Data Gathering Procedure

The researcher collected some of the information from books, theses, and dissertations found in the libraries and from the web articles in the internet. Other data such as the population number were sought from the educational education wherein the specific target of the study. The researcher used the online survey using Google documents to gather data for still the reason of hurdles happening in the area of the participants of the study such as the post COVID 19 pandemic. Before administering the questionnaires, the researcher had it evaluated for validity and accuracy by the research adviser, grammarian, and statistician to measure its statistical element. The researcher sought permission from

the Barangay Officials and the participants via email to administer the questionnaires through online surveys using Google forms. The questionnaires were retrieved and collected from gmail to the participants of the study before tallying and tabulating the results. The data gathered from the respondents were computed, analyzed and interpreted with the assistance of the adviser and the professor. The manuscript was encoded and edited for oral presentation/oral defense.

Data Analysis

The researchers employed the frequency and percentage distribution in classifying respondents according to their age, sex, civil status, educational level, and nature of work.The researchers used (1) verbal descriptions to capacity building of BDRRMC in the municipality of Concepcion, Tarlac.
The following statistical tools were utilized in the presentation and analysis of the

data.

Weighted Mean- this was used in the study to calculate the central tendency response of the respondents.
WM= $\sum fx/n$Where:
Sum of all the products of f and x; where:

f- Frequency
x-Weighted of each population
$\sum$ − sum of all subject n- Population

Likert Scale- this was used in the study to determine the degree of their response to the variables was done by assigning a verbal interpretation to the given weights. This was used in interpreting the factors affecting emergency response time of the local rescue team in the municipality of Concepcion, Tarlac. Moreover, it was used to evaluate the results about the capacity development of the BDRRMC in Tarlac.

Ethical Considerations

This research was undertaken in response to a requirement in Master's Thesis and also systematically finding answers to the capacity building of BDRRMC in the municipality of Concepcion, Tarlac relative to the knowledge on categorically divulging the competence of the respondents or their understanding in this masterpiece. As a matter

of fact, the respondents approved the pursuance of this research; hence the respondents concerned were also notified. In the process of research, the data and information that were taken from the respondents had been held with utmost confidentiality and anonymity. Ensuing research ethics and rules had also been aptly

observed by the researcher to circumvent future problems relative to plagiarism, intellectual dishonesty, and the like.

Statement	Mean	Adjectival Description
Decrease or remove the negative consequences of the hazards.	4.25	Very Competent
Minimize the impact and consequences of an emergency	3.40	Neutral
Lessen the toxicity of the consequence of the hazards.	4.35	Very Competent
Prevent both the structural and non-structural risks present in the area.	3.76	Competent
Grand Mean	**3.94**	**Competent**

I. RESULTS AND DISCUSSION

1. 1. Capacity Development of Barangay Disaster Risk Reduction Management Council (BDRRMC)

The study described and evaluated the competency in disaster response among BDRRMC in the Municipality of Concepcion, Tarlac along with: Prevention and Mitigation; Preparedness; Response; and Recovery and Rehabilitation. The respondents rated each statement based on their perceived competency of the BDRRMC.

The initial provisions for the statement were to decrease or remove the negative consequences of hazards, with a mean rating of 4.25 and an adjectival rating of "Very Competent." This suggests a high level of effectiveness in the efforts of the Barangay Disaster Risk Reduction and Management Council (BDRRMC) to prevent and mitigate disaster scenarios. Respondents have encountered minimal negative outcomes, and the absence of reported problems further reinforces the high competency rating. It indicates that the BDRRMC successfully addresses potential dangers and implements strategies to minimize their consequences.

The competency demonstrated in preventing and mitigating adverse effects is crucial for ensuring the safety and protection of the community. Residents can be reassured that the BDRRMC is proficient in minimizing risks and safeguarding lives and property, even in the face of potential hazards. The notable proficiency of the BDRRMC in minimizing or alleviating the adverse effects of hazards indicates their success in implementing strategies for disaster prevention and mitigation. This competency contributes significantly to the overall resilience of the community in the face of potential disasters, fostering a sense of security and well-being among the residents.

Secondly, the provision aimed at minimizing the impact and consequences of emergencies received a mean rating of 3.40, classifying it as "neutral" based on the adjectival scale. This neutral competency rating suggests a certain level of effectiveness but also points to identified shortcomings. While the BDRRMC is successful in mitigating the impact of emergencies, there is room for improvement. Although specific problems are not explicitly mentioned, the neutral rating implies that there may be challenges or limitations in the BDRRMC's approach to minimizing the consequences of emergencies.

Despite these challenges, the importance of this competency remains crucial for ensuring overall effectiveness. However, there is a recognized need for improvement to address the identified shortcomings and enhance the BDRRMC's ability to minimize the consequences of emergencies effectively. This acknowledgment of room for improvement underscores the commitment to continuous enhancement and adaptability within the BDRRMC. By addressing these challenges, the BDRRMC can further strengthen its capacity to respond to emergencies and contribute to the well-being and safety of the community.

2 3. 2. Evaluation of the Competency in Preparedness

Statement	Mean	Adjectival Description
Identifies and lists organizational resources based on the disaster preparedness plan	3.75	Competent
Designate roles and responsibilities to members of the BDRRMC based on the disaster preparedness plan	3.68	Competent
Includes procedures and policies in crafting disaster preparedness plan	2.35	Somewhat Competent
Can Prevent both the structural and non-structural risks present in the area.	3.68	Competent

Based on the results, the first provision of Identifies and lists organizational resources based on the disaster preparedness plan obtained with 3.75 with adjectival rating of "Competent". The BDRRMC demonstrates competence in identifying and listing organizational resources based on the disaster preparedness plan. This competency is attributed to the organization and concreteness of their plan of action. No problems are reported in this regard, emphasizing the importance of maintaining alignment with the disaster plan to ensure effective implementation. Organizational resources, including plans for evacuation areas, food and water resources, and fund allocation for safety measures, play a crucial role in the execution of disaster preparedness activities. Next, the designate roles and responsibilities to members of the BDRRMC based on the disaster preparedness plan got the mean of 3.68 with adjectival rating of "competent". Competency is also observed in designating roles and responsibilities to BDRRMC members based on the disaster preparedness plan. This suggests full cooperation and task fulfillment within the team, promoting effective collaboration. No reported problems indicate that officials and members are active and able to cooperate well, essential for the success of safety activities. The BDRRMC exhibits competence in assigning roles and responsibilities to its members in alignment with the disaster preparedness plan. This demonstrates a high degree of organization and coordination, fostering productive collaboration within the team. The absence of reported issues in this domain suggests that officials and members are diligently carrying out their designated tasks, highlighting the efficiency of a well-functioning and cooperative team.

Recommendations

The following is a list of potential recommendations based on the research's findings, and conclusions.

1. The Department of Interior and Local Government (DILG) may help the BDRRMCs base their disaster preparedness actions and projects on a good risk analysis. This is because a good risk analysis is the basis of any disaster management 158 plan that can work. One way to do this would be to give communities risk assessment tools for multiple dangers.
2. The Municipality of Concepcion, Tarlac may conduct an immediate poll of the Barangay Disaster Risk Reduction and Management Committees of every barangay to find out what kind of people they are and how ready they are for disasters. This will help them figure out how well they can handle disasters.
3. It is also more important than ever to look at how ready the BDRRMCs are for educational, environmental, and overall human growth in all the barangays that fall under its control. By "educational development," the researchers mean that disaster management could become a regular subject in primary and secondary schools and the subject of a four-year course of study at the tertiary level. This could happen slowly but surely in the city's locally run schools and colleges, without going against any national educational policy or program. In this case, "ecological development" means that the researchers think the BDRRMCs of Tarlac should be made more efficient in a planned way, taking into account both the internal and external environments and "customizing" disaster preparedness to meet the needs of each barangay community without sacrificing the ability to communicate and build skills.

4. When researchers talk about "human development," they mean that the social systems approach to disaster preparedness could be used to make a plan for how the "four Cs"— Community Risk Assessment, Contingency Planning, Communication Systems, and Capacity-Building—could be used to make people more resilient to disasters and keep them that way.
6. For the academic community to keep support and raise study standards in disaster management by putting together community-level disaster management practices.
7. Future researchers may take on this study's challenge to improve the so-called "four (4) Cs": Community Risk Assessment, Contingency Planning, Communication System, and Capacity-Building. They could do this

by suggesting new indicators and testing them with things like the respondents' income and health. This would help everyone learn how to be better prepared for disasters, which is the main goal of all of humanity's work.

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